REPORT NUMBER: 201-VER-04-02

SAFETY COMPLIANCE TESTING FOR FMVSS 201
OCCUPANT PROTECTION IN INTERIOR IMPACT

MITSUBISHI MOTORS NORTH AMERICA, INC.
2004 MITSUBISHI ENDEAVOR LS 4-DOOR

NIHTSA NUMBER: C45601
GD TEST NUMBER: 8655-F201-25

ADVANCED INFORMATION ENGINEERING SERVICES
A GENERAL DYNAMICS COMPANY
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225

Test Date: July 15, 2004

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
Mail Code: NVS-220, Room 6111
400 Seventh Street, SW
Washington, DC 20590
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Transportation Science Center

Approval Date:

August 5, 2004

FINAL REPORT ACCEPTANCE BY:

NHTSA, Office of Vehicle Safety Compliance

8.16.2004

Date of Report Acceptance

Received report
10-7-04

8655-F201-25
Compliance tests were conducted on the subject vehicle, a 2004 Mitsubishi Endeavor LS, 4-door, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure TP-201-02 for determination of FMVSS 201 compliance.

Test failures identified were as follows: None
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SECTION I

PURPOSE AND TEST PROCEDURE

This head impact compliance test is part of the FMVSS 201 Occupant Protection in Interior Impact Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-01-C-01025. The purpose of this impact compliance test was to determine whether the subject vehicle, a 2004 Mitsubishi Endeavor LS 4-door, NHTSA No. C45601, meets the performance requirements of FMVSS 201, Occupant Protection in Interior Impact. The compliance test was conducted using the requirements found in the OVSC Laboratory Test Procedure No. TP-201-02 dated March 3, 1989.
SECTION 2

SUMMARY OF OCCUPANT PROTECTION IN INTERIOR IMPACTS

A 2004 Mitsubishi Endeavor LS, 4-door, NHTSA No. C45601, was impacted at various locations throughout its instrument cluster/dash panel and seat back area by a 15 lb, 6.5 inch diameter steel headform. A total of four (4) impacts were performed in this test series. The four (4) chosen impact points were:

- Seat Back / Head Restraint Area
- Instrument Panel Cluster Area
- Airbag Cover / Dash Panel Area (2 impacts)

The selected impact areas on the test vehicle appeared to comply with the performance requirements of FMVSS 201.

The 6.5 inch diameter steel headform weighed 15 lb and had an accelerometer mounted along its centerline.

One (1) channel of data for each target impact test was recorded on a Keyser-Threde data acquisition system. Data plots can be found in Appendix C. Still photographs can be found in Appendix A of this report.
# TEST VEHICLE RECEIVING INSPECTION DATA SHEET

| VEHICLE YEAR/MAKE/MODEL/STYLE:     | 2004 Mitsubishi Endeavor LS 4-door |
| NHTSA NO.:                      | C45601                             |
| VIN:                           | 4A4MM21S44E034123                   |
| DATE OF MANUFACTURE:           | 08/03 (SEE CERTIFICATION LABEL)    |
| COLOR:                         | Silver                             |
| ODOMETER READING:              | 117 miles                           |
| LABORATORY:                    | GD Engineering                     |
| TEST DATE:                     | July 15, 2004                       |

**NUMBER OF SEATING POSITIONS:**

- FRONT: 2  
- REAR: 3  

**INSTRUMENT PANEL:**

- **NOTE UNUSUAL FEATURES:** None

**TYPE OF FRONT SEATS:**

- BENCH: -  
- BUCKET: X  
- SPLIT BACKS: -

**TYPE OF HEAD RESTRAINTS:**

- FIXED: -  
- ADJUSTABLE: X

**VEHICLE EQUIPPED WITH ARMRESTS?**

- NO: -  
- YES: X  
  - NUMBER: 4  
  - LOCATION: Front and rear door panels, rear seat center fold down arm rest and center console arm rest

**VEHICLE EQUIPPED WITH SUN VISORS?**

- NO: -  
- YES: X

**VEHICLE EQUIPPED WITH INTERIOR DOOR LATCHES?**

- NO: -  
- YES: X  
  - NUMBER: 2  
  - LOCATION: Glove Box and Center Console Armrest
HEADFORM IMPACT TEST RESULTS
INSTRUMENT PANEL

VEHICLE YEAR/MAKE/MODEL/STYLE: 2004 Mitsubishi Endeavor LS 4-door
NHTSA NO.: C45601
VIN: 4A4MM21S44E034123
DATE OF MANUFACTURE: 08/03 (SEE CERTIFICATION LABEL)
COLOR: Silver
ODOMETER READING: 117 miles
LABORATORY: GD Engineering
TEST DATE: July 15, 2004

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<thead>
<tr>
<th>IMPACT LOCATION AND NUMBER</th>
<th>NUMBER</th>
<th>X (inches)</th>
<th>Y (inches)</th>
<th>ANGLE (degrees)</th>
<th>VELOCITY (mph)</th>
<th>PEAK ACCELERATION (3 ms Clip) Gs</th>
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<tbody>
<tr>
<td>1</td>
<td>Dash Cluster</td>
<td>28.25</td>
<td>1.5</td>
<td>-11</td>
<td>11.4</td>
<td>40.14</td>
</tr>
<tr>
<td>2</td>
<td>Left Side of Airbag Cover</td>
<td>27.5</td>
<td>9.75</td>
<td>-73</td>
<td>11.3</td>
<td>54.72</td>
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<tr>
<td>3</td>
<td>Right Side of Airbag Cover</td>
<td>26.75</td>
<td>21.8</td>
<td>-63</td>
<td>11.5</td>
<td>58.70</td>
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REFERENCE POINT: Seating Reference Position (SGRP) on front passenger side is the reference point (x positive forward from SGRP and y positive to the right of the Vehicle centerline).

REMARKS:
HEADFORM IMPACT TEST RESULTS
SEAT BACKS

VEHICLE YEAR/MAKE/MODEL/STYLE: 2004 Mitsubishi Endeavor LS 4-door
NHTSA NO.: C45601
VIN: 4A4MM21S44E034123
DATE OF MANUFACTURE: 08/03 (SEE CERTIFICATION LABEL)
COLOR: Silver
ODOMETER READING: 117 miles
LABORATORY: GD Engineering
TEST DATE: June 11, 2004

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<th>X (inches)</th>
<th>Y (inches)</th>
<th>ANGLE (degrees)</th>
<th>VELOCITY (mph)</th>
<th>PEAK ACCELERATION (3 ms Clip) Gs</th>
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<tr>
<td>Seat Back</td>
<td>-16.25</td>
<td>0</td>
<td>58</td>
<td>14.5</td>
<td>30.55</td>
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</table>

REFERENCE POINT: SGRP on rear passenger side is the reference point (x positive forward from SGRP and y positive to the right of the seat centerline).
SUNVISOR AND ARMREST EVALUATION

<table>
<thead>
<tr>
<th>VEHICLE YEAR/MAKE/MODEL/STYLE:</th>
<th>2004 Mitsubishi Endeavor LS 4-door</th>
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<tr>
<td>VIN:</td>
<td>4A4MM21544E034123</td>
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<td>DATE OF MANUFACTURE:</td>
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<tr>
<td>COLOR:</td>
<td>Silver</td>
</tr>
<tr>
<td>ODOMETER READING:</td>
<td>117 miles</td>
</tr>
<tr>
<td>LABORATORY:</td>
<td>Veridian Engineering</td>
</tr>
<tr>
<td>TEST DATE:</td>
<td>July 15, 2004</td>
</tr>
</tbody>
</table>

SUN VISOR INFORMATION:

1. Are sun visors constructed of or covered with energy absorbing material?
   
   YES (PASS): X     NO (FAIL): -

2. Are any edges statically contactable by a spherical 6.5 inch diameter headform of radius less than 0.125 inch?
   
   YES (FAIL): -     NO (PASS): X

ARMREST INFORMATION:

A. FIXED ARMREST

1. Is it constructed of energy absorbing material with the capability of laterally deflecting 2 inches without contacting any underlying rigid material?
   
   YES: N/A     NO: N/A

2. Is it constructed of energy absorbing material that deflects or collapses within 1.25 inches of the rigid test panel surface without contacting underlying rigid material between 0.50 and 1.25 inches from the panel which has a vertical height of less than 1 inch?
   
   YES: N/A     NO: N/A

3. Does it provide adequate pelvic area impact protection?
   
   YES: X     NO: -

4. Does it meet at least one of the criteria No. 1 to 3?
   
   YES (PASS): X     NO (FAIL): -

B. FOLDING ARMREST

Is it made of or covered with energy absorbing material? Or does it meet at least one of the criteria No. 1 to 3?

YES (PASS): X     NO (FAIL): -
DOOR LATCH EVALUATION

| VEHICLE YEAR/MAKE/MODEL/STYLE: | 2004 Mitsubishi Endeavor LS 4-door |
| NHTSA NO.: | C45601 |
| VIN: | 4A4MM21S44E034123 |
| DATE OF MANUFACTURE: | 08/03 (SEE CERTIFICATION LABEL) |
| COLOR: | Silver |
| ODOMETER READING: | 117 miles |
| LABORATORY: | GD Engineering |
| TEST DATE: | July 15, 2004 |

LATCH ENGAGEMENT INTERFERENCE

<table>
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<tr>
<th>DESCRIPTION OF LATCH LOCATION</th>
<th>NO LOAD</th>
<th>10G HORIZONTAL TRANSVERSE</th>
<th>10G VERTICAL</th>
<th>30G HORIZONTAL LONGITUDINAL</th>
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</thead>
<tbody>
<tr>
<td>Glove Box</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Center Console Arm Rest</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
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</table>

(APPENDIX B CONTAINS CALCULATION SHEETS WHICH ARE BASED ON MANUFACTURER'S DATA)
## SUMMARY OF RESULTS

<table>
<thead>
<tr>
<th>VEHICLE YEAR/MAKE/MODEL/STYLE:</th>
<th>2004 Mitsubishi Endeavor LS 4-door</th>
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<td>08/03 (SEE CERTIFICATION LABEL)</td>
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<td>COLOR:</td>
<td>Silver</td>
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<td>ODOMETER READING:</td>
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<tr>
<td>LABORATORY:</td>
<td>GD Engineering</td>
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<tr>
<td>TEST DATE:</td>
<td>July 15, 2004</td>
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</tbody>
</table>

<table>
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<tr>
<th>Instrument Panel</th>
<th>Number of Impacts</th>
<th>Pass/Fail</th>
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<tbody>
<tr>
<td>Instrument Panel</td>
<td>3</td>
<td>Pass</td>
</tr>
<tr>
<td>Seat Back</td>
<td>1</td>
<td>Pass</td>
</tr>
<tr>
<td>Sun Visors</td>
<td>n/a</td>
<td>Pass</td>
</tr>
<tr>
<td>Armrests</td>
<td>n/a</td>
<td>Pass</td>
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<tr>
<td>Interior Compartment Doors</td>
<td>n/a</td>
<td>Pass</td>
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**Remarks:**
APPENDIX A

PHOTOGRAPHS
## PHOTOS PHOTOS

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<td>A-2</td>
<td>RIGHT SIDE VIEW OF VEHICLE</td>
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<td>A-3</td>
<td>3/4 FRONTAL VIEW FROM LEFT SIDE OF VEHICLE</td>
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<td>A-4</td>
<td>3/4 REAR VIEW FROM RIGHT SIDE OF VEHICLE</td>
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<td>ARMREST LEFT REAR DOOR</td>
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<td>ARMREST CENTER CONSOLE</td>
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<td>DELINEATED INSTRUMENT PANEL IMPACT ZONE PRE-TEST</td>
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<td>A-14</td>
<td>INSTRUMENT PANEL LEFT SIDE AIRBAG COVER IMPACT PRE-TEST</td>
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<td>INSTRUMENT PANEL LEFT SIDE AIRBAG COVER IMPACT POST-TEST</td>
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<td>A-17</td>
<td>INSTRUMENT PANEL RIGHT SIDE AIRBAG COVER IMPACT POST-TEST</td>
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<td>A-18</td>
<td>INSTRUMENT PANEL DASH CONSOLE IMPACT PRE-TEST</td>
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<tr>
<td>A-19</td>
<td>INSTRUMENT PANEL DASH CONSOLE IMPACT POST-TEST</td>
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<tr>
<td>A-21</td>
<td>HEAD RESTRAINT IMPACT AREA PRE-TEST</td>
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<tr>
<td>A-22</td>
<td>HEAD RESTRAINT IMPACT AREA POST-TEST</td>
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Figure A-7: SUNVISOR CONSTRUCTION
APPENDIX B

INTERIOR COMPARTMENT DOOR CALCULATIONS
FMVSS No. 201
Latch Component Analysis Information

Latch component inertial analysis information for each interior compartment door assembly located in an instrument panel, console assembly, seat back, or side panel adjacent to a designated seating position in accordance with the procedure described in section 5 of SAE Recommended Practice J839b, "Passenger Car Side Door Latch Systems."

Such data shall include:

1. Geometric details of the latch/lock configuration.
   Refer to attachments. (XHF0-170038 for G/BOX Lock and XHF0-170039 for Floor Console Lid)

2. Mass data for each element in the linkage.
   Refer to attachments. (XHF0-170038 for G/BOX Lock and XHF0-170039 for Floor Console Lid)

3. Spring rates for each spring element in the configuration.
   Refer to attachments. (XHF0-170038 for G/BOX Lock and XHF0-170039 for Floor Console Lid)

4. Any additional details unique to the design yet necessary for the calculations.
   No
Attachment 7

FMVSS 201 Information
Endeavor - Interior Compartment Resistance to Inertial Load Calculation (G/BOX LOCK)

1. Standard
   Horizontal longitudinal direction: G/BOX is not released under a load of 30G.
   Horizontal traverse direction: G/BOX is not released under a load of 30G.
   Vertical direction: G/BOX is not released under a load of 30G.

2. LOCK calculation
   The calculation assumes that there is a load of 30G in the direction of the bolt pushing down to release the lock and the turning (pull-up) direction of the handle.
   (If the worst condition, 30G, is cleared, the lock is not released.)

(2-1) 30G load in the direction pushing down on the BOLT
   BOLT SPRING load (striker locked condition) is 0.36±10% = 0.315kgf
   BOLT mass: 0.0025kg, PLATE mass 0.0032kg
   In case 30G load: (0.0025+0.0032)×30G=0.171kgf
   Since 0.171<0.315 the lock is not released.

(2-2) 30G load in the rotation direction of the HANDLE (LOCK release direction)
   HANDLE mass: 0.0115kg
   Applied to the HANDLE edge (PLATE contact area) when a load of 30G is applied to the HANDLE.
   Mass moment P1 is taken from the attachment
   (0.0115×30G)×8.95=P1×14.15   P1=0.22kgf
   Force P2 input to the BOLT after transferring from HANDLE to PLATE.
   0.22×3.62=P2×46.75   P2=0.17kgf
   Since 0.17<0.315, less than BOLT SPRING load, the LOCK is not released.

3. G/BOX ASSY Calculation
   G/BOX ASSY mass: 2.2kgf
   Taking the moment ratio on the attachment:
   310.6÷178.1×2.2×30G=115.1kgf
   Therefore, a mass moment of 115.1kgf is applied to the striker locking area.
The following are calculations taken when there is a load applied in the direction from A to D referenced on the attachment.

Load in direction of A: The shearing force to the BOLT is $38.6 \times 5.4 = 208.4$ kg.

Since $115.1 < 208.4$, the G/BOX is not released.

Load in direction of B: The shearing force to the BOLT is $88.3 \times 8.5 = 750.6$ kg.

Since $115.1 < 750.6$, the G/BOX is not released.

Load in direction of C: The shearing force to the BOLT is $85.3 \times 8.5 = 726.1$ kg.

Since $115.1 < 726.1$, the G/BOX is not released.

Load in direction of D: The shearing force to the BOLT is $346.5 \times 8.5 = 2945$ kg.

Since $115.1 < 2945$, the G/BOX is not released.
MR98900(G/BOX LOCK) combaters荷重計算

BODY

STRIKER

BOLT

HANDLE

PLATE

BOLT

HANDLE

PLATE

BOLT

HANDLE
2003.5 Mitsubishi PSU Floor Console
FMVSS 201 Requirements

Synopsis:
Calculations were done to evaluate the Console Lid and Latch for conformance to FMVSS 201 standards.

1. 10g Upward Event
For the 10g upward event, the failure modes most at risk were assumed to be:

   1. Latch Hook fails in shear
   2. Latch disengages
   3. Latch Pin fails in shear

Failure Mode 1:
Shear stress on the Latch Hook due to 10g upward acceleration was calculated to be 1.51 MPa. Since the yield shear stress for Acetal is 30 MPa, the calculated shear stress is significantly below yield stress.

Failure Mode 2:
The Torque exerted on the Latch Hook under a 10g upward acceleration is in opposite direction to the torque needed to release the Latch. Therefore the Latch will not disengage under this event.

Failure Mode 3:
The shear stress on the Latch Pivot was calculated to be 2.8 MPa. Since the yield shear stress for Acetal is 30 MPa, the shear stress on the Latch Pivot is significantly below the yield stress.

2. 30g Frontal Event
For the 30g Frontal acceleration event the likely failure mode was assumed to be the Latch disengaging from the Console Box.

The Torque about the Latch Pivot to prevent unlatching under a 30g Frontal acceleration was calculated to be 594.8 Nm. The minimum Latch Effort at this Torque level was calculated to be 7.6 N.

The minimum force exerted by the Latch Spring to prevent unlatching is 12.3 N. The Latch Spring provides a pre-load of 18 N based on calculation, 1.5 times greater than that needed to retain the Latch under this condition.
3. 10g Lateral Event

By inspection, the Console Lid will not release under a 10g lateral load and this is also confirmed by load testing per ES-X33021 sec 11.5.

4. 30g Rearward Event

By inspection, the Console Lid will not release under a 30g rearward event since the Latch is forced further into engagement under this condition.

1. 10g Upward Acceleration

Given: Lid Weight = 12.37N
Latch Weight = 1.15N
Force distributed to 2 Latch Hooks
Forces distributed to 2 Latch Pivots
Acetal Shear Strength = 30Mpa
10g Force = 10x13.53N = 135N
Pivot Cylinder Area = 19.6mm²

Calculations:

A. Shear Stress on Latch Hook due to Lid weight:

\[ \Sigma M_{hook} = 135N \times 210mm \times 271mm = 0 \]

\[ F_{Loo} = \frac{135N \times 210mm}{271mm} \]

\[ F_{Loo} = 105N \]

\[ F_{hook} = F_{Loo} \times \frac{1}{2} \]

\[ F_{hook} = 53N \]

Hook Area = 5mm x 7mm = 35mm²

\[ \tau = \frac{53N}{35mm²} \]

\[ \tau = 1.51Mpa \]

Safety Factor = 30Mpa > 1.51Mpa = 19
Latch hook will not fail in shear under 10g upward acceleration.
B. Torque exerted on Latch:

\[ \Sigma M_{pivot} = 9.1 \text{mm} \times F_{latch} - 51 \text{mm} \times 10 \times \text{Latch Weight} \]

\[ \Sigma M_{pivot} = 9.1 \text{mm} \times 105N - 51 \text{mm} \times 10 \times 1.16N \]

\[ \Sigma M_{pivot} = 364N \text{mm} \]

Torque will not cause Latch to disengage.

C. Force on Latch Pivot Pin:

\[ \Sigma M_{latches} = F_{pivot} \times 265 \text{mm} - 135N \times 210 \text{mm} = 0 \]

\[ F_{pivot} = \frac{135N \times 210 \text{mm}}{265 \text{mm}} \]

\[ F_{pivot} = 107N \]

2 Pivots, therefore, Force seen by cylinder of Pivot Pin is:

\[ F_{cylinder} = \frac{107N}{2} \]

\[ F_{cylinder} = 54N \]

Shear Stress \( \tau = \frac{54N}{19.6 \text{mm}^2} \)

\[ \tau = 2.6 \text{Mpa} \]

Safety Factor = 30Mpa + 2.6Mpa = 10

Latch Pivot will not fail in shear under 10g upward acceleration.
30g Frontal Acceleration

Given: Latch Weight = 1.16N
30g Force = 30 x 1.16N = 34.8N

Calculations:

A. Minimum Torque to prevent Latch from unlatching under 30g frontal acceleration:

\[ \Sigma M_{\text{torq}} = 34.8N \times 30\text{mm} - 1.16N \times 51\text{mm} - T = 0 \]

\[ T = 984.8\text{Nmm} \]

B. Effort to overcome 30g frontal torque and Latch weight at handle:

\[ \Sigma M_{\text{torq}} = F_e \times 134\text{mm} - 1.16N \times 51\text{mm} - T = 0 \]

\[ F_e = 1.16N \times 51\text{mm} + 984.8\text{Nmm} \]

\[ F_e = 134\text{mm} \]

\[ F_e = 7.8N \]

Minimum Latch effort to prevent unlatching at 30g is 7.8N.
C. Min Spring Force (Fs):

\[ Fs = \frac{984.8 \text{ Nm}}{80 \text{ mm}} \]

\[ Fs = 12.3 \text{ N} \]

Latch Spring at Pre-Load is deflected 5mm. The force, Fs, thus generated is:

\[ t_{\text{spring}} = \frac{1}{12} (25.4 \text{ mm} \times 0.0005^3) \]

\[ I_{\text{spring}} = 2.65 \times 10^{-19} \text{ m}^4 \]

\[ Fs = 3 \times 2.07 \times 10^7 \text{ N/m}^2 \times 2.64 \times 10^{-13} \text{ m}^4 \times 0.005 \text{ m} \times 0.035 \text{ m} \]

\[ Fs = 19.1 \text{ N} \]

Safety Factor = 19.1/12.3 = 1.5

Latch will not release under 30g Frontal acceleration.

By Inspection, Console Lid will not release under 10g lateral acceleration and 30g rearward acceleration. In the 10g lateral case, the Console Lid is retained by ribs off of Liner and the Hinge which resists lateral motion. In the 30g rearward case, the Latch is forced further into the latched position and there is no reason to suspect that the latch would rebound sufficiently to release.
Product Name: PBU Floor Console

Project #: / Ch Bst #: 123456
Test Method: FMVSS 201
Test Series #: W-1412
Spec 

Test Name(s): FMVSS 201

Test Description: Subject all covered storage doors to a 200 deg. closure in the forward and vertical

Acceptance Criteria: Latch must remain closed under 100 deg. closure, 100 deg. closure in the vertical and

Reasons for Test: OY Testing

Check One for Test Phase:
[ ] OY - Engineering Design
[ ] DY - Design Verification
[ ] PV - Product Validation

Check One for Test Code:
[ ] NC - New Customer
[ ] RC - Rejected Design
[ ] IC - Rejected Improvement

Instrument Name:
Digital Calipers
ES-100 Digital Force Gauge

Test Set-Up:
The sample was mounted in the representative loading press and a load was applied through the lid 208 mm from the front center of the lid.

Test Observations:
Both samples exceeded the minimum breakaway force allowed of 32 lbs. Actually, both exceeded the gauge capability to measure force.

Conclusion:
After having met the specified requirements and having met the acceptance criteria called for in this test, it is reject CONFIRMING.

Test Engineer: Kyle Doherty
Test Location: PC Lab

Disposal: PASS

Test Date: 04/25/02

Sample Build Date: 04/17/02

Test Start Date: 04/03/02

Test Completion Date: 04/25/02

Quantity Planned: 2

Sample Description: 2 samples, 1 with all of production tools, one HVAC and one non-HVAC
APPENDIX C

DATA PLOTS
FMVSS 201 Linear Impact - 2004 Mitsubishi Endeavor - LS Airbag -73 Deg

Headform Front Ax Velocity

Max: 11.4 [mph] at 0.050 [s]
Min: -4.1 [mph] at 0.080 [s]
FMVSS 201 Linear Impact - 2004 Mitsubishi Endeavor - RS Airbag -63 Deg
Headform Front Ax Velocity

Max: 11.6 [mph] at 0.049 [s]
Min: -3.3 [mph] at 0.089 [s]
FMVSS 201 Linear Impact - 2004 Mitsubishi Endeavor - Center Dash -11 Deg
Headform Front Ax

Max: 29.3 [g] at 0.037 [s]
Min: -40.5 [g] at 0.063 [s]
FMVSS 201 Linear Impact - 2004 Mitsubishi Endeavor - Center Dash -11 Deg
Headform Front Ax Velocity

Max: 11.6 [mph] at 0.050 [s]
Min: -2.9 [mph] at 0.092 [s]
FMVSS 201 Linear Impact - 2004 Mitsubishi Endeavor - Seat Back -58.0 Deg

Headform Front Ax

Max: 44.3 [g] at 0.042 [s]
Min: -31.8 [g] at 0.070 [s]